SERVO-TOP

QE5542

CE

Type

U340SE

Instruction Manual

Part 3

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Part 3

11. Survey and List of Parameters

11.1 Explanation of Parameter Survey

The parameter survey is designed as an aid for finding parameters quickly. It is a summary of references for the parameter list. Listed behind each reference are all parameters which exert an influence on the function described by the reference.

The parameter survey is divided into five columns:
Column 1 shows the references (functions) to which parameters are assigned.
Column 2 shows the abbreviations of the respective functions.
Column 3 shows all parameters (setting numbers) belonging to the respective reference.
Column 4 shows, for each function (reference) which controls inputs or outputs, the applicable indications such as Ex or Ax which can also be found on the connections diagram.
Column 5 shows, for each function (control inputs (Ex) or control outputs (Ax)), the respective plugs with the number of contacts (see connections diagram).

Example for searching a parameter:
Keyword (function): inverse rotation
The parameter survey shows in column 3 the parameter numbers 618, 623, 801.

Suppose that the inverse rotation function is to be enabled. The parameter list shows this function under parameter number 618.

11.2 Explanation of Parameter List

The parameter list is divided into 5 columns. These comprise, in

column 1:	the parameter number,
column 2:	is the explanation (meaning) of the parameters and the coding system of row 1 of the keys of the mini operator's panel, used when the parameter concerned can be programmed with the mini operator's panel,
column 3:	the programming level (A, B, C) on which the parameter in question can be accessed,
column 4:	the range of values within which the parameter in question can be set,
column 5:	the value of the parameter in question is set on delivery ex factory.

Parameters having "either/or" validity (software switches) can merely be set to value I or II. In the case of such parameters, column 4 is empty.
Parameter numbers in acute brackets; e.g. <105>, mean the value (content) set for the parameter in question.

Example:

107	Speed for front backtack when <106> = I
I	limited by <105>
II	limited by <607>

Explanation:
Parameter 107 is valid only the the value (content) of parameter <106> = I.
If parameter 107 is set to I (<107> = I), then the speed for the front backtack is limited by parameter 105, e.g. <105> = 1500. If parameter 107 is set to II (<107> = II), then the speed for the front backtack is limited by the value of parameter 607, e.g. <607> = 4000.

11.3 Parameter survey U340SE-02 (2a_401_8.EN)

Function	Abbrev'n	Parameter	Input Output	Connection Socket/Contacts
Accelerate	DRZAN	722		
Auxiliary drive	ZUSAN	805/808		
Backtack	RIE	107/110		
Backtack inversion	RIV	419/617		
Backtack suppression	RIUNT	419		
Blower	BLA	668/783		
Brake	DRZAB	723/758/851		
Chopper	MESSER	427/714		
Control	REG	758/867/874 884/885/886 887/889/890 891/894/990		
Delay	VERZ	189/190/191 192/193/623 641/716/717 730/731/864 958		
Direction of rotation	DRR	800/805/808		
End backtack	ER	110/731		
Feed reverse	TUM	568/721/903		
Front backtack	AR	105/106/107		
Hardware test	HWT	797		
Inverse rotation	RDR	618/623/801		
Machine class	MAKL	799		
Needle position	NAPO	675/700/701 702/703/710		
Needle position change-over	NPW	616	E2	X2:1
Needle up without trimming	NHOS	616/710	E2	X2:1
Photocell	LS	111/112/113 161/199/615 640/641		
Presser foot	PF	427/633/651 719/729/730	E4 A4 A7	X5:1 X4:5 X4:6

Program	PR	114/128/129 130/131/132 133/134/135 206/221/851		
Programming level C	EBC	798		
Puller	PULL	427		
Repeat backtack	WRIE	731		
Residual brake	STBR	718		
Seam end	NE	114/145/206 602		
Single stitch	EST	617		
Soft start	SANL	116/117		
Speed	DRZ	105/106/107 110/117/199 221/605/606 607/608/609 676/850/903		
Speed decrease	DRZAB	723/758/851		
Speed increase	DRZAN	722		
Speed limitation	DB	221		
Start	START	113/161/603 640/641		
Start delay	STVERZ	729		
Starting block	ANLSP	613/619		
Stitch condensation	STVD	105/106/107 110/419/568 617/903	E1 A5	X1:1 X1:4
Stop	STOP	114/206/427 613/619	E14	X6:6
Stroke adjustment	HV	427		
Target stitch	PEIPO	653/789		
Thread monitor	FW	141/620	E12	X3:3
Thread trimming	SN	601/609/619 633/714/717 734	A1 A2	X6:2 X6:10
Thread wiper	WI	668/715/716	A3	X6:3
Time needed to switch on	EINZ	714/715/783 889		
Timing output	TA	719/721/734		
Unlocking of chain	ENTKET	425		

11.4 List of Parameters U340SE-02 (2a_401_8.EN)

No.	Function (Meaning)	Level	Range of Values	Standard Value
105	(AR/DRZ/STVD) Speed for front backtack/stitch condensation (11000000)	B,C	100-6400	1200 Kl. 1, 3 3500 Kl. 2
106	(AR/DRZ/STVD) Speed for front backtack/stitch condensation I variable (treadle-controlled) II constant (corresponding to <105>)	B,C		II
107	(AR/RIE/DRZ/STVD) Speed for front backtack/stitch condensation when <106> = I I limited by <105> II limited by <607>	B,C		I
110	(ER/RIE/DRZ/STVD) Speed for end backtack/stitch condensation (01100000)	B,C	100-6400	3500 Kl. 1, 3 5000 Kl. 2
111	(LS) Photocell compensation stitches 1 (stitches from photocell clear to seam end)	A,B,C	1-255	6
112	(LS) Number of stitches for photocell fade-out on knit fabrics (according to stitch size)	A,B,C	0-255	0
113	(LS/START) Start with photocell I when photocell is dark only II also when photocell is clear	B,C		II
114	(PR/STOP/NE) Stop before seam end after stitch count (last seam section) I yes II no	B,C		II
116	(SANL) Soft start stitches (11100000)	A,B,C	0-255	0
117	(SANL/DRZ) Speed for soft start stitches (00010000)	B,C	30-640	400
128	(PR) Stitches for seam section 1	A,B,C	0-255	10 Kl. 3 - Kl. 1, 2
129	(PR) Stitches for seam section 2	A,B,C	0-255	40 Kl. 3 - Kl. 1, 2
130	(PR) Stitches for seam section 3	A,B,C	0-255	0 Kl. 3 - Kl. 1, 2
131	(PR) Stitches for seam section 4	A,B,C	0-255	3 Kl. 3 - Kl. 1, 2
132	(PR) Stitches for seam section 5	A,B,C	0-255	2 Kl. 3 - Kl. 1, 2
133	(PR) Stitches for seam section 6	A,B,C	1-255	2
134	(PR) Stitches for seam section 7	A,B,C	0-2550	300
135	(PR) Stitches for seam section 8	A,B,C	0-255	5 Kl. 3 - Kl. 1, 2
141	(FW) Number of stitches until bobbin thread monitor signal becomes active (signal suppression on bobbin thread monitor)	B,C	0-255	10

145	(NE) Number of stitches for seam end	A,B,C	0-255	3	Kl. 1, 3
	(10010000)			15	Kl. 2
161	(LS/START) Start delay for start of photocell	B,C	0-2550	100	Kl. 1
				70	Kl. 2, 3
189	(VERZ) Delay t1	B,C	0-2550	50	Kl. 2
				200	Kl. 3
				-	Kl. 1
190	(VERZ) Delay t2	B,C	0-2550	180	Kl. 2
				-	Kl. 1, 3
191	(VERZ) Delay t3	B,C	0-2550	600	Kl. 2
				-	Kl. 1, 3
192	(VERZ) Delay t4	B,C	0-2550	1000	Kl. 2
				500	Kl. 3
				-	Kl. 1
193	(VERZ) Delay t5	B,C	0-2550	1000	Kl. 2, 3
				-	Kl. 1
199	(DRZ/LS) Speed for photocell compensation stitches	B,C	300-6400	1200	Kl. 1, 3
				2000	Kl. 2
206	(NE/PR/STOP) Interrupt/discontinue seam sections at speed = constant (<203> = II) I with treadle -2 II with treadle 0	B,C		II	
221	(PR/DB/DRZ) Speed limitation for sewing programs (or sewing program 1)	B,C	300-6400	1200	
419	(RIV/RIUNT/STVD) Function of external key I backtack/stitch condensation inversion II backtack/stitch condensation suppression (flip-flop function)	B,C		I	
425	(ENTKET) Unlocking of chain at seam end I yes II no	A,B,C		II	
427	(PF/HV/PULL/STOP/MESSER) Selection of the function available with input E4 1 = presser foot 2 = stroke adjustment 3 = control of puller 4 = stop 5 = chopper 6-9 without function	B,C	1-5	3	Kl. 1
				5	Kl. 2, 3
568	(TUM/STVD/BSN) output A4 is at I Feed reverse / stitch condensation II Tape cutter	B,C		I	
601	(SN) Trimming I yes II no (00001000)	B,C		I	
602	(NE) Seam end at treadle position I slightly heeled (-1) II fully heeled (-2)	B,C		II	
603	(START) Start after seam end I after treadle 0 only II immediate start of operation	B,C		I	

605	(DRZ) Actual speed in display I yes II no	B,C		II	
606	(DRZ) Speed: level 1 (min.) (10001000)	B,C	30-640	200	
607	(DRZ) Speed: level 12 (max.) (01001000)	B,C	100-10000	4000	
608	(DRZ) Speed level curve (treadle characteristic) I linear II not linear	B,C		I	
609	(SN/DRZ) Trimming speed 1 (11001000)	B,C	30-300	200	
613	(ANLSP/STOP) Input „Ex“ induces block/stop at I potential „zero“ II potential „plus“	B,C		I	
615	(LS) End recognition when photocell goes I from light to dark II from dark to light	B,C		II	
616	(NPW/NHOS) Function of external key (input E2) I needle position change-over (NPW) II needle up without trimming (NHOS)	B,C		II	
617	(EST/RIV/STVD) Function of external key (input E3) I single stitch (EST) II backtack/stitch condensation inverted (RIV)	B,C		I Kl. 1 II Kl. 2, 3	
618	(RDR) Inverse rotation after seam end I yes II no (00101000)	B,C		II	
619	(SN/ANLSP/STOP) Control of thread trimming (safety switch no run) I yes II no	B,C		II	
620	(FW) Thread monitor function I yes II no	B,C		II	
623	(RDR/VERZ) Delay in start-up time (ms) for inverse rotation	B,C	0-2550	10	
633	(SN/PF) Trimming and presser foot I with treadle „-2“ only (<602> = II) II corresponding to <602>	B,C		II	
640	(LS/START) Start possible by obscuring the photo-cell (if existing, note parameter 113!) I yes II no	B,C		II	
641	(LS/START/VERZ) Delay before start (ms) after photocell (at <640> = I)	B,C	0-2550	150	
651	(PF) Presser foot with automatic descent on machine stop I yes II no	B,C		I	

653	(PEIPO) Target stitch before sewing I yes II no	B,C		II	
668	(BLA/WI) Thread wiper/thread clearer I yes II no (10101000)	B,C		I	
675	(NAPO) Automatic needle change-over into position 2 (up) after enabling I yes II no	B,C		II	
676	(DRZ) Speed adjustment via potentiometer possible I yes II no	B,C		I	
700	(NAPO) Needle position 0 (reference position of the needle) (01101000)	B,C	0-239	0 *	
701	(NAPO) Angular adjustment I with handwheel (teach-in) II by keys (+/-)	B,C		I	
702	(NAPO) Needle position 1 (needle down) (11101000)	B,C	0-239	210	
703	(NAPO) Needle position 2 (thread take-up lever up) (00011000)	B,C	0-239	60	
710	(NAPO/NHOS) Needle position 3 (needle up) (11011000)	B,C	0-239	60	
714	(EINZ/SN/MESSER) Duration (ms) for chainstitch trimming or chopper	B,C	0-2550	90 350	Kl. 1, 3 Kl. 2
715	(EINZ/WI) Duration (ms) of thread wiper	B,C	0-2550	110	
716	(VERZ/WI) Delay in start-up time (ms) for thread wiper	B,C	0-2550	90 150	Kl. 1, 3 Kl. 2
717	(SN/VERZ) Delay in start-up time (ms) for trimming method when the machine is not activated by the treadle	B,C	0-2550	10 150	Kl. 1, 3 Kl. 2
718	(STBR) Timing of residual brake (0 = brake off) (00111000)	B,C	0-100	0	
719	(PF/TA) Timing output A4 (0 = 100% switching on)	B,C	0-100	40 60	Kl. 1, 3 Kl. 2
721	(TUM/TA) Timing output A5 (0 = 100% switching on)	B,C	0-100	40	
722	(DRZAN) Acceleration ramp 1 gradual 50 steep	B,C	1-50	40	
723	(DRZAB) Brake ramp 1 gradual 50 steep	B,C	1-50	31 20	Kl. 1, 3 Kl. 2
729	(STVERZ/PF) Start delay after lowering presser foot	B,C	0-2550	120 350	Kl. 1, 3 Kl. 2
730	(PF/VERZ) Lift delay for presser foot after seam end	B,C	0-2550	50 300	Kl. 1, 3 Kl. 2

731	(ER/WRIE/VERZ) Delay before stitch counting for end backtack (ERV)	B,C	0-2550	200	
734	(SN/TA) Timing output A2	B,C	0-90	10	
758	(REG/DRZAB) Deceleration ramp	B,C		II	
	I braking as per <723>				
	II braking with maximal moment				
783	(BLA/EINZ) Time needed to switch on (ms) for thread blower	B,C	0-2550	640	
789	(PEIPO) Needle position 10 (target stitch)	B,C	0-239	225	
797	(HWT) Hardware test	B,C		II	
	I yes				
	II no				
798	(EBC) Programming level C	B,C		II	
	I yes				
	II no				
799	(MAKL) Machine class which has been selected (10111000)	B,C	1-3	1	Kl. 1
				2	Kl. 2
				3	Kl. 3
800	(DRR) Direction of motor rotation viewed from belt pulley	B,C		II	Kl. 1, 3 *
				I	Kl. 2
	I left-hand rotation				
	II right-hand rotation				
	(01111000)				
801	(RDR) Reverse rotation angle after seam end	B,C	5-200	30	
805	(DRR/ZUSAN/SMOT) Rotational direction of auxiliary drive	B,C		II	Kl. 1, 2 *
				I	Kl. 3
	I lefthand rotation				
	II righthand rotation				
808	(DRR/ZUSAN/SMOT) Rotating direction of auxiliary drive 2	B,C		II *	
	I lefthand rotation				
	II righthand rotation				
850	(DRZ) Maximum motor speed	C	2000-6000	4500	
851	(PR/DRZAB) Brake ramp for stitch-count seams	C		I	
	I steep				
	II gradual				
855	(SMOT) maximum speed of stepping motor 2	B,C	10-2550	2500	
856	(SMOT) Start-/stopping speed of stepping motor 2	B,C	10-1000	500	
857	(SMOT) band engagement speed of stepping motor 2	A,B,C	10-1000	500	
858	(SMOT) acceleration of stepping motor 2	B,C	1-20	10	
859	(SMOT) reduction ratio of main motor/stepping motor 2	B,C	1-255	20	
860	(SMOT) acceleration increments of stepping motor 2	B,C	0-255	150	
861	(SMOT) braking increments of stepping motor 2	B,C	0-255	100	
862	(SMOT) maximum current of stepping motor 2	B,C	1-255	140	Kl. 1, 3
	(255 = 3.6 A)			255	Kl. 2
863	(SMOT) stationary current of stepping motor 2	B,C	0-255	70	Kl. 1, 3
	(255 = 3.6 A)			128	Kl. 2
864	(SMOT/VERZ) delay time from stop until switch-on of stationary current of stepping motor 2 (ms)	B,C	0-2550	1000	Kl. 1, 3
				2550	Kl. 2

865	(SMOT) Stepping motor 2 activated	B,C	0-2	0	Kl. 2
	I yes			-	Kl. 1, 3
	II no				
867	(REG) integral amplification, band regulation	B,C	0-40	5	
868	(SMOT) band forward movement 2 of stepping motor 1	A,B,C	0-2550	200	
869	(SMOT) band reverse movement 2 of stepping motor 1	A,B,C	0-2550	200	
870	(SMOT) maximum speed of stepping motor 1	B,C	10-2550	2500	
871	(SMOT) Start-/stopping speed of stepping motor 1	B,C	10-1000	500	
872	(SMOT) band engagement speed of stepping motor 1	A,B,C	10-1000	500	
873	(SMOT) acceleration of stepping motor 1	B,C	1-20	10	
874	(SMOT/REG) proportional amplification of band tension regulation	B,C	0-50	0	
875	(SMOT) reduction ratio of main motor/stepping motor 1	B,C	0-255	22	Kl. 1, 2
				18	Kl. 3
876	(SMOT) band forward movement of stepping motor 1	A,B,C	0-2550	200	
877	(SMOT) band reverse movement 2 of stepping motor 1	A,B,C	0-2550	50	
878	(SMOT) acceleration increments of stepping motor 1	B,C	0-255	150	
879	(SMOT) braking increments of stepping motor 1	B,C	0-255	100	
884	(REG) Proportional amplification of the speed control (in general)	B,C	4-50	12	Kl. 1, 3
				20	Kl. 2
885	(REG) Integral amplification of the speed control	C	0-100	30	
886	(REG) Proportional amplification of the order controllers	C	1-50	20	
887	(REG) Differential amplification of the order controllers	C	1-100	30	
889	(EINZ/REG) Time required for order controlling (0 = always)	C	0-1000	400	
890	(REG) Proportional amplification of the superior order controllers for the residual brake	C	1-50	25	
891	(REG) Proportional amplification of the lower speed controllers for the residual brake	C	1-50	20	
894	(REG) Rotational direction of motor and synchronizer	C		I	
	I different				
	II same				
897	(SONST) Commutation transmitter	C		II	
	I ABB				
	II QR				
898	(SONST) Number of motor poles	C		II	
	I 4 poles				
	II 6 poles				
903	(TUM/STVD/DRZ) Function of external key (input E1)	B,C	0-2	0	
	I constant speed				
	II feed reverse / stitch condensation				
950	(SMOT/RAFF) gathering value 1 of stepping motor axis 1	A,B,C	0-200	0	Kl. 1, 3
				10	Kl. 2
951	(SMOT/RAFF) gathering value 2 of stepping motor axis 1	A,B,C	0-200	40	Kl. 1, 3
				14	Kl. 2

952	(SMOT/RAFF) gathering value 3 of stepping motor axis	1A,B,C	0-200	80 18	Kl. 1, 3 Kl. 2
953	(SMOT/RAFF) gathering value 4 of stepping motor axis	1A,B,C	0-200	120 22	Kl. 1, 3 Kl. 2
954	(SMOT/RAFF) gathering value 5 of stepping motor axis	1A,B,C	0-200	160 26	Kl. 1, 3 Kl. 2
956	(SMOT) maximum current of stepping motor 1 (255 = 3.6 A)	B,C	1-255	140	
957	(SMOT) stationary current of stepping motor 1 (255 = 3.6 A)	B,C	0-255	70	
958	(SMOT/VERZ) delay time from stop until switch-on of stationary current of stepping motor 1 (ms)	B,C	0-2550	1000	
990	(REG) Distance to position at switch over from speed control to position control	C	1-255	32	